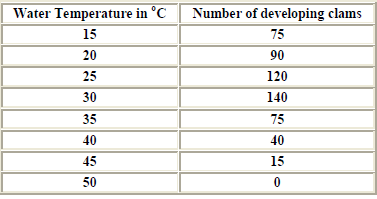
Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_

**Graphing and Data Analysis Worksheet**

Mrs. Krouse, PreAP Biology, 2015-2016

**Graphing Practice Problem #1:** A clam farmer has been keeping records of the water temperature and the number of clams developing from fertilized eggs. The data is recorded below.



1. Make a line graph of the data from on the grid provided below. Make sure to include an appropriate title, labeled axes with units, a logical scale, properly plotted points, and a key if necessary.
2. Identify the independent variable (IV): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Identify the dependent variable (DV): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Identify the average (mean) number of clams developing in water samples at various temperatures. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Identify the optimum water temperature for clam development. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



**Graphing Practice Problem #2:** Scientists tested the effects of amount of water on grass growth. Their data is summarized in the chart below.

|  |  |
| --- | --- |
| **Amount of Water Given (in mL)** | **Average Amount of Grass Growth (in mm)** |
| 50 | 5 |
| 100 | 11 |
| 150 | 17 |
| 200 | 24 |
| 250 | 15 |

1. Make a line graph of the data from your packet on the grid provided below. Make sure to include an appropriate title, labeled axes with units, a logical scale, properly plotted points, and a key if necessary.

1. Identify the independent variable (IV): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Identify the dependent variable (DV): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Identify the optimum water amount for grass growth: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Is there a control group in this experiment? If not, how might you create a control group?

(Remember a control group is one that does not receive the independent variable.)

